



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,485	12/21/2001	Stephen John Hinde	1509-254	4550
22879	7590	10/05/2005	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			KNEPPER, DAVID D	
			ART UNIT	PAPER NUMBER
			2654	

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/024,485	Applicant(s) HINDE ET AL.	
	Examiner David D. Knepper	Art Unit 2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3 sheets</u> . | 6) <input type="checkbox"/> Other: ____.  |

1. Applicant's correspondence filed on 21 Dec 2001, 17 June 2002 and 18 June 2002 has been received and considered. Claims 1-37 are pending.

**Title**

2. The title is objected to because it may be confused with artificial language programming such as neural networks. Suggested title: --Artificial Spoken Language--.

**Priority Claims**

3. The applicant(s) should check their filing receipts and/or the Patent Application Information Retrieval (PAIR) system for the acknowledgment of their **domestic** priority or benefit claims (if any) under 35 USC 119(e), 120 or 121 (37 CFR 1.78).

**Claims**

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-37 are rejected under 35 U.S.C. § 103 as being unpatentable over Loglan ([www.loglan.org/Loglan1/chap2.html](http://www.loglan.org/Loglan1/chap2.html)) in view of Ittycherih (6,192,337).

As per claims 1, 5, 18, 19, 20, 21 “constructing an artificial spoken language” is taught by Loglan which is an artificial language created in 1955 (page 2/27):

“providing a set of phonemes” (his phonemes of sections 2.4-2.9);

“creating words...storing the set of created words” (his words of sections 2.13-2.16, it is inherent that the words are stored).

It is noted that Loglan does not explicitly teach “speech recognition”. However, he teaches that Loglan is a desirable language for improved intelligibility and ...dialectal confusion can be expected to be at a minimum (page 3/27, section 2.3). Ittycheriah teaches how to train a vocabulary of a speech recognition engine which is for rejecting confusable words during training. It would have been obvious for a person having ordinary skill in the pertinent art, at the time the invention was made, to use Ittycheriah to recognize any language, such as Loglan because Ittycheriah teaches that his training can improve any language including research engines, foreign language, or even multi-lingual speech recognition (col. 12, lines 43-67).

Claim 2, 6, 9, 12, 15: “creating grammar rules” is taught with his grammar in section 2.13 (page 13/27).

Claims 3, 4, 7, 10, 13, 16, 17, 29, 31-35 and 37: Choosing phonemes/utterance elements from a human language is taught in his section 2.2, pages 2-3 which list a number of known human languages.

Claims 8, 11, 14, 24, 25, 26: Choosing any spoken elements “for their low risk of confusion” is the basic teaching of both references as noted above regarding claim 1.

Claim 23: The use of a “confusion matrix” is taught by Ittycheriah as a well know alternative to calculate a measure of confusion, distance or distance matrix (col. 10, lines 50 and 55- col. 11-39).

Claim 27, 28: Performing evaluation using “text-to-speech” is taught by Ittycheriah in col. 6, lines 8-13; col. 10, lines 5-11; and col. 12, lines 21-26 with his TTS system (text-to-speech system). Ittycheriah does not teach any preference for gender or speaker and would therefore be obvious to employ in any such device whether specific or generalized (see col. 3, lines 63-67).

Claims 30 and 36: Storing data is obvious as noted under claim 1 above.

### **Prior Art**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kennaway (“some Internet resources relating to constructed languages”) is cited to show that there exist at least 312 constructed languages. While a large number of these may render the applicant’s invention unpatentable (depending upon date), they are considered cumulative to the example given by Loglan.

Prothero (“Designand Implementation of a Near-optimal Loglan Syntax”) is cited to show that it is well known to perform various computer processing on Loglan based grammars.

Stentiford (5,384,701) is cited to show that it is well known to translate various languages from speech-to-speech or using alternative text input/output.

7. Some correspondence may be submitted electronically. See the Office's Internet Web site <http://www.uspto.gov> for additional information.

Please address mail to be delivered by the United States Postal Service (USPS) as follows:

Mail Stop \_\_\_\_\_  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

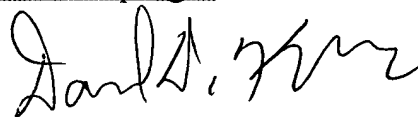
Fax phone number for Group 2600 is (703) 872-9306

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Knepper whose telephone number is (571) 272-7607. The examiner can normally be reached on Monday-Thursday from 07:30 a.m.-6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (571) 272-7602.

For the Group 2600 receptionist or customer service call (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028 between the hours of 6 a.m. and midnight Monday through Friday EST, or by email at [ebc@uspto.gov](mailto:ebc@uspto.gov). For general information about the PAIR system, see <http://pair-direct.uspto.gov>.



David D. Knepper  
Primary Examiner  
Art Unit 2654  
October 2, 2005